

VALUE PLURALISM IN SUSTAINABLE DEVELOPMENT: TOWARDS TRANSDISCIPLINARY RESEARCH

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Abstract: Mapping values and goals of sustainable development has resulted in a number of diverse evaluation instruments – sustainability indicators. For the experts in applied ethics, this inventory of indicators represents a general value inventory, which requires attention, ethical review and ethical audit to determine the extent to which these values support the sustainability ethos and are a desirable and correct part of the value structures in the society. In an environment characterised by value pluralism and institutional complexity of sustainable development, the organisations implementing sustainable development projects face a range of problems in their struggle to achieve the relevant goals while having to address social, economic, and environmental commitments. Transdisciplinarity, as a new way to organise research, reflects in the new organisational and institutional processes. It represents a new type of cooperation among scholars from different fields, practical experts and organisations (regional and international) – and a new type of research. This indicates that issues pertaining to ecology, ethics and other fields cross the borders and the individual disciplines are cooperating.

Keywords: Applied Ethics, sustainable development, environment.

1. Introduction

The current globalising world, society, politics and public administration (state and local) sometimes deal with unfavourable conditions in terms of development, prosperity, stability, and harmony. Ethical, social, and ecological risks may arise as well as collisions, conflicts and crises. Their management and resolution requires following certain values (economic, social, ecological). In general, every human activity or strategy is axiologically anchored in certain values and can be justified in terms of ethics based on a value construct or a paradigm. These value constructs include the concept of sustainable development and the sustainability paradigm. The question about the particular value orientation necessary for the 21st century is not the only one that arises here. How do we integrate different values and value orientations in all their complexity, diversity, contradiction, and coherence in the cultural plurality of our

life and future? The current acceleration of scientific, political and civic initiatives related to sustainability and sustainable development as well as the growing complexity of the ecological and environmental issues call for a new type of management, values, and cooperation.

A shift in values represents the basic precondition of creating a sustainable society. Today, three dimensions of sustainable development can be distinguished: economic, social, and environmental; they are identical with the triple bottom line. The triple bottom line is used to evaluate the success, functionality, and stability of a policy, strategy, programme, or project. It allows for a better understanding of values pertaining to different forms of sustainable environmental and ecological policies and practices implemented in specific regions. They aim to contribute to reasonable prosperity as well as social and environmental justice through maintaining the quality of life and protecting the biological and cultural diversity. The list of ethical and moral issues, which have not previously been noted as interconnected, opens new horizons in the field of applied ethics, taking into consideration the multiparadigmatic and interdisciplinary nature of these issues. Applied ethics is not ignorant or indifferent towards values such as life, respect for life, quality of life, well-being of the human and nature, or justice; it exceeds the limits of the exclusively human horizon by reflecting the values of the Earth and its biosphere. L. Vladyková (2013, p. 87) claims that applied ethics “will permeate science and let it transcend the walls of laboratories by allowing it to realize its own social dimension and absorb the expectations and problems troubling most people on this planet...” These problems pertain to broad, complicated and overlapping spheres: from the climate change to the loss of biodiversity, from the social injustice to the worldwide poverty. Currently, it is estimated that more than a million people live in poverty. According to the International Union for Conservation of Nature and the United Nations Environment Programme (UNEP), the growth of human population and consumption, transformation of natural areas into agricultural ones, climate change, and pollution devastate the environment. We agree with the Dutch author, Helen Kopnina (2018), that these problems may not be manageable using a single approach although they related in terms of the sustainability concept. People are motivated by values and value preferences; ethical thinking about sustainability and sustainable development values is definitely influenced by value preferences and moral convictions.

In this paper we seek to understand what transdisciplinary research is and how role of applied ethics in the TDR of sustainable development is? We seek to explore incorporating participatory elements into research. We answer the questions about character and cognitive base of a transdisciplinary approach and improve outcomes for scientists and users of research. The problem of transdisciplinary research is formulated in the context of value pluralism of sustainable development.

The triad of goals representing the inventory of new ethics, environmental and ethical policy and practice defined by responsibility relates to “mutual dependency of economic, social, and environmental priorities in different places” (Bostrom, 2012). The theory and practice identifies

the basic value framework for all three components pertaining to the triple bottom line of sustainable development. Today, we commonly speak of:

- Economic sustainability.
- Social sustainability (understood as social and cultural sustainability by certain authors).
- Environmental sustainability.

The economic aspect of sustainable development includes competitiveness of the Slovak economy; sustainable production and consumption; sustainable energy production; transport; human resources; innovation; science and research, etc. Programme instruments (strategies, concepts, policies, projects) aimed at introducing social sustainability generally focus on the following areas: hunger and poverty, quality of life, gender policy, access to resources, justice, inclusion and exclusion, forced resettlement, cultural heritage, etc. Environmental sustainability means protection of the natural heritage and ecosystems, conservation of biodiversity, managing soil erosion and chemicalisation, climate change, and air pollution (certain large cities and agglomerations are known for low air quality; in London, medical experts have even identified deaths caused by this phenomenon). In Poland they are intensively engaged in sustainable development at the *Centre for Business Ethics and Sustainable Development* in *Politechnika Śląska Zabrze*. Professor *Aleksandra Kuzior* is a theorist who has initiated a number of conferences and expert panels over the last decade. We know her expert texts and studies in Slovakia, at the Department of Ethics and Applied Ethics, Faculty of Arts, Matej Bel University in Banská Bystrica, for example: *Axiology of Sustainable Development* (Kuzior, 2014).

2. Value plurality and ethical evaluation

The value orientation¹, as a basis of a culture pertaining to a specific society, indicates and explains the causes of human activity and decisions.

The paradigmatic shifts in ethical and political thinking indicate that we are trying to come to terms with value pluralism by creating an approach applicable in economic, social, political, and environmental practice. The development of human activities reflects in the multi-aspect evaluation. A single sustainability project or event (e. g. logging in protected zones or building a hydroelectric power plant on a river) can be evaluated from several perspectives. Decisions regarding sustainability development projects and strategies are based on certain intentions, goals, needs, and related expectations. Decision-making always requires us to choose from the

¹ The *Velký Sociologický Slovník* dictionary states that *value orientation* represents the most important part of the internal structure of the personality. It reflects the person's life experience and allows them to distinguish the important from the unimportant (from their own perspective). The qualitative difference of a subjective value orientation depends upon a range of factors such as the individual's personality, age, level and forms of adaptation to their social environment, cultural environment (*Velký Sociologický Slovník*, 1996, p. 376).

possible and permissible alternatives, or alternatives upon which we have agreed previously. To navigate the complex communication channels between different cultures, civilisations and value systems, a value analysis in terms of their forms, structures, and compatibility is necessary if understanding and consensus are to be reached. The fact that the pluralist world-view has found its place in the society results from the broad and dynamic development of the society accompanied by the plurality of human interests and evaluation perspectives. The postmodern era is characterised by seeking a consensus – mutual agreement and a common stance which can be reached by following the rationality principle. However, as Kondrla (2010) states, it seems as if two platforms were competing in a conflicting discourse: the plurality position without a central point (Deleuze, Guattari) and the plurality position with a centre (Habermas, Rorty). Is the plurality of values and opinion a discontinuous state without any recourse? That would mean that individual values and value systems as represented in different language system are valid only if they are expressed and addressed in the system of their origin. The complexity of this problem requires a transdisciplinary research.

Decision-making on different levels of the social reality relates to compliance with or application of certain values, value systems, value statements and related rules. Every culture has a value system, which serves as its foundation. Values reflect what is considered right, good, and desired; they reflect the desired ways of being and acting. The pluralistic society recognizes different types of values in economics, politics, morals, religion, aesthetics, and science. Economy and its development does not necessarily have to take into consideration the environmental values; technological performance criteria do not have to apply in the social sphere where values of justice, art, etc. are of greater importance. People perceive values as something that satisfies their needs (physiological, social, intellectual, emotional, and psychological). It means that upon joining a culture, we learn the standards pertaining to social evaluation as well as social roles.

3. Towards transdisciplinary research (TDR) and the role of applied ethics

To cope with complex challenges such as climate change, depletion of resources, global markets, and changing societal and legislative expectations, knowledge creation and exchange are crucial for spurring sustainable development. Globalization changes the direction of the university education and influences structural changes in the content of the curriculum (Svitačová, Kovačiková, 2016, p. 162). In the beginning, sustainable development was perceived as a symbol. Since the 1970s we have crossed the horizons of exclusively protective attitudes and entered the territory of environmental policy, environmental management, environmental information systems and the environmental social movement. Today, we already partly do business and manufacture products employing integrated environmental management

(Klimková, 2017). The environment has become an agenda and the subject of different social spheres. We speak of sustainable regions, sustainable communities, sustainable strategies, best available technologies, sustainable development and also sustainable education (Klimková, 2015). Recently, novel models of knowledge creation and cooperation have been introduced. Point at the importance of a science–society interaction for knowledge exchange and a mutual learning process of knowledge creation (Roux et al., 2017) at the community of practice. Practice communities can be a way and a tool for improving knowledge management, besides it is important empirical research to refine present knowledge (Triste et al., 2018).

Transdisciplinary research is one way among others to identify and learn about the sustainable development process, and factors that influence sustainability (Angelstam et al., 2013). This form and version of research is founded on integration of multiple disciplines and the active inclusion and participation of stakeholders representing different societal sectors in the processes of problem formulation, knowledge production, and learning (Hirsch Hadorn et al., 2008; Klein, 2008). As boundaries between disciplines are crossed, and as research engages more with stakeholders in complex systems, traditional academic definitions and criteria of research quality are no longer enough – there is a need for a parallel evolution of principles and criteria to define and evaluate research quality in a transdisciplinary research (TDR) context (Belcher, 2016). Transdisciplinary direction in research, education and institutions attempt to get through the discrepancy between knowledge production in academia, and knowledge requests for solving societal problems. Addressing societal knowledge demands by designing research processes in a transdisciplinary way has several major implications for practice. It becomes necessary to overstep boundaries between different academic cultures, such as between the different humanities and the natural sciences. Moreover, theoreticians and researchers must step into problem fields and integrate "in mutual learning with people in the life-world" (Hirsch Hadorn, 2007, p. 3) and to provide a more systematic account and reflect of some cross-cutting issues.

While the need for transdisciplinary research in a world facing complex problems of a persistent nature is very evident, we should not depreciate the barriers that will have to be overcome to turn this emerging form of research into a mainstream endeavour. There are barriers within the scientific community. Many theoreticians and scientists prefer to continue their basic research and not confront issues and questions raised by non-scientists – practitioners. While such basic research will remain important, tackling complex issues of concern to the public and the policy-makers will need input from scientists and non-scientists, resulting in a different type of research (Hirsch Hadorn et al., 2007).

According by Belcher et al. (2016) research increasingly seeks both to generate knowledge and to contribute to real-world solutions, with strong emphasis on context and social management. As boundaries between disciplines are crossed, and as research engages more with stakeholders in complex systems, traditional academic definitions and criteria of research quality are no longer sufficient – there is a need for a parallel evolution of principles and criteria

to define and evaluate research quality in a transdisciplinary research (TDR) context (Belcher, 2016). Good-quality of transdisciplinary research (TDR) addresses important social/environmental problems and produces knowledge that is useful for decision making and problem solving (Klein 2008).

When ethics is included in the working out of solutions, the epistemological requirements, the researches (which have advising and recommendations for practice and decision-makers) this is good way for good science. Ethics recommendations face are different than those faced by academic philosophers. Although in Slovakia, philosophers and ethicists less often are used as consultants on ethical issues of sustainability and for the decision makers, their advice in this context must refer to the decision-makers context rather than to pure ethics and philosophy. As an ability to publicly justify decisions and advice is a practical constraint in this context, there are limits to the extent to which the advice must be justified. One must assume that there are valid ethical beliefs and ethical standards that there is reasonable advice to be given. For these reasons, the participation of applied ethics is particularly important in research teams and epistemic communities.

At this point, it is probably good to ask what is applied ethics? How it to transfer and implement in practice? Applied ethics is specific theoretical-practical type of analyses. and institutionalization of ethics in issues of an environmental nature and environmental conservation, business, in society, in human rights, the medicine, military and the safety policy, technical science and technology, etc.

By P. Fobel (2007) There are many lines and ways how to support and practice ethics. They include the following: specialized institutions and teams providing a scientific interdisciplinary discourse; various forms of internal and external consultancy; consultant and expert work in relation to the evaluation and analyses of ethics at different social levels; projecting ethical arrangements in organisations; work in ethical commissions; preparation of specialists either in a specialized form or according to requirements of big corporation; systematic education at universities as well as institutes (Fobel, 2007, p. 73).

4. Conclusion

Decision-making on different levels of the social reality relates to compliance with or application of certain values, value systems, value statements and related rules. The triad of goals representing the inventory of new ethics, environmental and ethical policy and practice defined by responsibility relates to “mutual dependency of economic, social, and environmental priorities in different places” (Bostrom, 2012) and we can identify the basic value framework for all three components pertaining to the triple bottom line of sustainable development (economic sustainability; social and cultural sustainability; environmental sustainability).

Community knowledge of social and ecological change can help to shape an applied research agenda. While the benefits of transdisciplinary research are widely recognized, there are institutional and practical constraints on researchers wishing to put these approaches into practice. Transdisciplinary direction in research, education and institutions attempt to get through the discrepancy between knowledge production in academia, and knowledge requests for solving societal problems. Addressing societal knowledge demands by designing research processes in a transdisciplinary way has several major implications for practice. It becomes necessary to overstep boundaries between different academic cultures, such as between the different humanities and the natural sciences.

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